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Prevention of HIV/AIDS Transmission in Key Communities in Surabaya

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ABSTRACT
Indonesia is in third place among Asia Pacific countries for the growth and spread of HIV with a total of 46,000 cases. East Java Province is designated as an area with concentrated HIV prevalence along with five other provinces, namely DKI Jakarta, Papua, Bali, Riau and West Java. Knowledge is one of the predisposing factors in early detection of HIV disease, as well as risky behavior that can cause HIV AIDS transmission. This research aims to provide education to key communities as an effort to increase knowledge about HIV AIDS prevention and transmission**.** This research takes the form of experimental research, namely by measuring the increase in respondents' knowledge through pretest and posttest after the intervention. The intervention takes the form of providing education related to knowledge of preventing HIV/AIDS transmission. The intervention that will be carried out to increase knowledge about safe sexual behavior and preventing HIV AIDS transmission will be carried out by providing education on preventing HIV AIDS transmission in key communities at the Mahameru Foundation for 40 respondents**. Risky sexual** behavior such as having sexual relations with irregular partners, not using condoms during sexual intercourse, having sexual relations under the influence of alcohol and drugs are still carried out by key communities. The level of knowledge regarding risky sexual behavior, how HIV AIDS is transmitted and how to prevent HIV AIDS before education is carried out is still low.

Keywords: AIDS, HIV, Key Communities

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INTRODUCTION

HIV/AIDS (Human Immuno Defeciency Virus/ Acquired Immuno Defeciency Syndrome) is a chronic disease caused by the HIV virus which attacks the human immune system. Based on data from the Joint United Nations Program on HIV and AIDS (UNAIDS), in 2019 there were around 3.8 million people infected with HIV in the world, 1.7 million new HIV sufferers and 690,000 deaths caused by AIDS. UNAIDS estimated data states that there are 4,100 HIV cases per day in the 15-24 year age group and contribute 31% of cases. Based on WHO data in 2019, there were 78% of new HIV infections in the Asia Pacific region. There are around 5.8 million people with HIV/AIDS and a total of 300,000 new infections.
Currently, Indonesia is in third place among Asia Pacific countries for the growth and spread of HIV with a total of 46,000 cases, and growth of 16% per year. This number of cases is the

highest after China with 88,000 cases and India with 69,000 cases. HIV cases in East Java experienced an increase from 1999 to 2023, and experienced a decline in 2021. The number of HIV cases in East Java in 2021 there were 5,538 cases, this number has decreased compared to 2020 when there were 7,395 cases. Since September 2013, East Java Province has been designated as an area with concentrated HIV prevalence along with 5 (five) other provinces, namely DKI Jakarta, Papua, Bali, Riau and West Java.

The increase in the number of HIV sufferers in Indonesia is quite significant over time. In 1989 only 1 sufferer was reported, and this began to experience a sharp increase from 1999 to December 2021. Cumulative AIDS cases as of December 2021 were 21,943 cases. The increase in AIDS cases from year to year mostly comes from sexual factors. Data as of December 2021 shows that 80.3% of HIV AIDS cases are based on risk factors for sexual transmission (heterosexual). HIV AID cases in East Java are mostly found in Surabaya City, Malang Regency, Pasuruan Regency, Gresik Regency and Jember Regency. HIV cases are mostly transmitted through risky behavior such as heterosexual risky sexual behavior (68%), homosexuality (4%), perinatal (3%), and the use of non-sterile syringes in public health centers (11%), while the number of pregnant women recorded in PPIA services totaling 15,921 people (Directorate General of P2P SIHA 2019 Report).

An important factor related to efforts to suppress the spread and transmission of HIV AIDS is public knowledge regarding HIV AIDS. Knowledge is one of the predisposing factors in early detection of HIV disease, as well as risky behavior that can cause HIV AIDS transmission. Predisposing factors are factors that facilitate a person's behavior, including knowledge, attitudes, beliefs, beliefs, habits, values, social norms, culture and socio-demographic factors (Maulana, 2009). In Lawrence Green's theory, a person's health behavior is influenced by driving factors, namely factors that encourage a person to behave at risk of contracting HIV. Factors that influence knowledge are education, work, experience, age, beliefs, social culture, and exposure to information (Notoatmodjo, 2010).

Knowledge and insight regarding HIV AIDS is very important for the public to understand so that they can participate in breaking the chain of the spread of HIV AIDS. Currently, the government is also making efforts to reduce the increasing rate of HIV/AIDS transmission . Efforts made by the government include HIV/AIDS outreach in the form of information about early detection of HIV/AIDS, ways to prevent and control HIV AIDS. However, in reality, these efforts have not obtained maximum results and the target for providing information is also not evenly distributed. This is proven by the still high rate of HIV/AIDS among the community. Meanwhile, the availability of various means of information regarding early detection of HIV/AIDS, prevention and control methods as well is still lacking, whether in the form of educational reading or counseling from related parties. Based on this background, researchers conducted research to prevent the transmission of HIV/AIDS in key communities in Surabaya. Key Communities have an important role because key communities are active in providing assistance to PLWHA or campaign activities related to HIV AIDS. So those who are part of key communities must of course have high knowledge regarding HIV AIDS. Key communities have an important role in further carrying out the mission of disseminating the insights gained to the general public through various activities in their communities. This community service aims to analyze the impact of providing education as an effort to increase knowledge about the prevention and transmission of HIV AIDS in key communities.

METHODS

This research takes the form of experimental research, namely by measuring the increase in respondents' knowledge through pretest and posttest after the intervention. The intervention

takes the form of providing education related to knowledge of preventing HIV/AIDS transmission. The intervention that will be carried out to increase knowledge about safe sexual behavior and preventing HIV AIDS transmission will be carried out by providing education on preventing HIV AIDS transmission in key communities at the Mahameru Foundation. Providing education to key communities is very important because key communities are actively involved in providing assistance to PLWHA or campaign activities related to HIV AIDS. So those who are part of key communities must of course have high knowledge regarding HIV AIDS. Key communities have an important role in further carrying out the mission of disseminating the insights gained to the general public through various activities in their communities. Education about preventing HIV-AIDS transmission in key communities using PPT media. PPT is used as an educational medium for educational participants. Education was provided to 40 key community members who had taken the previous pretest. The implementation of community service was carried out via zoom media on August 30 2023 with a duration of 120 minutes.

RESULTS

HIV AIDS Prevention and Transmission Education was provided to 40 key community members who had taken the previous pretest. The following are the characteristics of individual participants in education on preventing HIV/AIDS transmission in key communities:

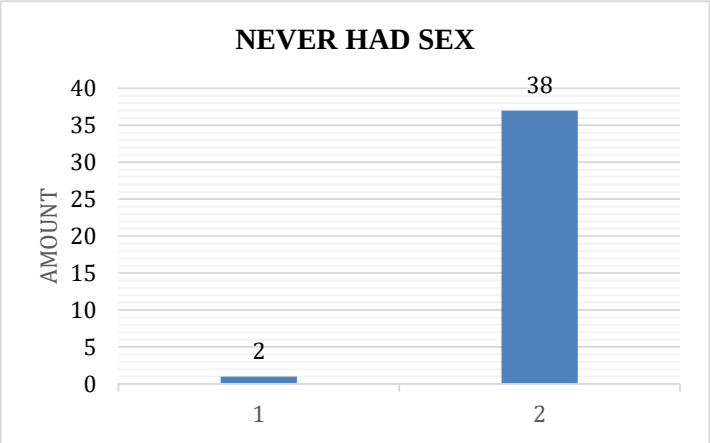
Table 1. Characteristics of Individual Education Participants

Research Aspect	Category	Frequency	Percentage (%)
Gender	Man	25	62.5
	Woman	15	37.5
Age	< 20 years	0	0
	21-30 years old	12	30
	31-40 years old	16	40
	41-50 years old	9	22.5
	51-60 years old	2	5
Education	JUNIOR HIGH SCHOOL	3	7.5
	SMA/SMK	21	52.5
	Diploma (D3)	0	0
	Bachelor degree)	14	35
	Master (S2)	2	5
Work	Doesn't work	2	5
	Work	38	95
Marital status	Not married yet	19	47.5
	Marry	17	42.5
	Widow widower	5	12.5
	Stay with Patner	1	2.5

Most of the participants in this education were men with a percentage of 62.5%. The majority of education participants had a high school equivalent with a total of 52.5%. Married and unmarried education participants have almost the same percentage. Education related to preventing HIV AIDS transmission in key communities was carried out to 40 participants

consisting of 25 men and 15 women. As many as 47.5% of education participants were unmarried, 42.5% were married, 12.5% were widows or widowers and 2.5% lived with partners without marriage. Based on the results of the initial survey, it is known that the majority of education participants have had sex, even though they are not married. The following is the frequency distribution of participants who have had sex:

Figure 1. Respondents who have ever had sex



Based on an initial survey of 40 education participants, it was discovered that 38 people (95%) had had sex, even though only 19 participants had ever been married and were widows/widowers. This shows that the participants had had sex before marriage. The following is a description of respondents' sexual behavior before intervention in the form of education:

Table 2. Sexual History and Sexual Behavior

No	Question	Answer	Frequency	Percentage (%)
1	Have ever had sexual intercourse	Yes	38	95
		No	2	5
2	Age of first sexual intercourse	<17 years	2	5
		18 to 30 years old	30	75
		Over 30 years old	8	20
3	Having a regular sexual partner	Yes	32	80
		No	8	20
4	Use of condoms during sex	Yes	25	62.5
		No	15	37.5
5	Having sex with a casual partner	Yes	7	17.5
		No	33	82.5
6	Ever had sex in exchange for gifts/money	Yes	2	5
		No	38	95
7	Have you ever been forced to have sex?	Yes	8	20
		No	32	80
8	Have you ever had sex under the influence of alcohol?	Yes	7	17.5
		No	33	82.5

No	Question	Answer	Frequency	Percentage (%)
9	Have you ever had sex under the influence of drugs?	Yes	2	5
		No	38	95
10	Have you ever shared needles (if you have used drugs)	Yes	40	100
		No	0	0
11	Have ever had a same-sex sexual partner	Yes	1	2.5
		No	39	97.5

Based on Table 2, it is known that 95% of respondents had had sex, and as many as 75% of respondents had sexual relations at the age of 18-30 years, there were even 5% of respondents who had sex at an early age, namely before 17 years. Respondents were spread across the age range of 20-60 years, and 80% of them had regular sexual partners. This permanent sexual partner means not only a marriage partner, but their permanent partner or partner in sexual relations during the last 12 months. The following are the results of measuring the level of knowledge about condoms, both their function, use and how to get them.

Table 3. Knowledge about condoms and their functions before education

No	Level	Frequency	Percentage (%)
1	Tall	8	20
2	Enough	25	62.5
3	Low	7	17.5

Based on the pretest results, it was found that 17.5% of respondents had low knowledge about condoms. As many as 62.5% have a sufficient level of knowledge and only 20% have high knowledge. Most respondents (95%) did not know about female condoms, and only knew that there were only male condoms. Apart from that, most respondents only knew that condoms only had the function of preventing pregnancy, so they only used condoms during sexual intercourse if only to prevent pregnancy.
In educational activities, participants were explained about the importance of using condoms and their function in terms of safe sexual relations. Apart from that, participants were also explained about female condoms which the general public may rarely know about, as well as the benefits and how to get them. The following is the difference in the level of participants' knowledge regarding condoms before and after the educational activity:

Figure 2 Graph of Knowledge Level about condoms before and after education

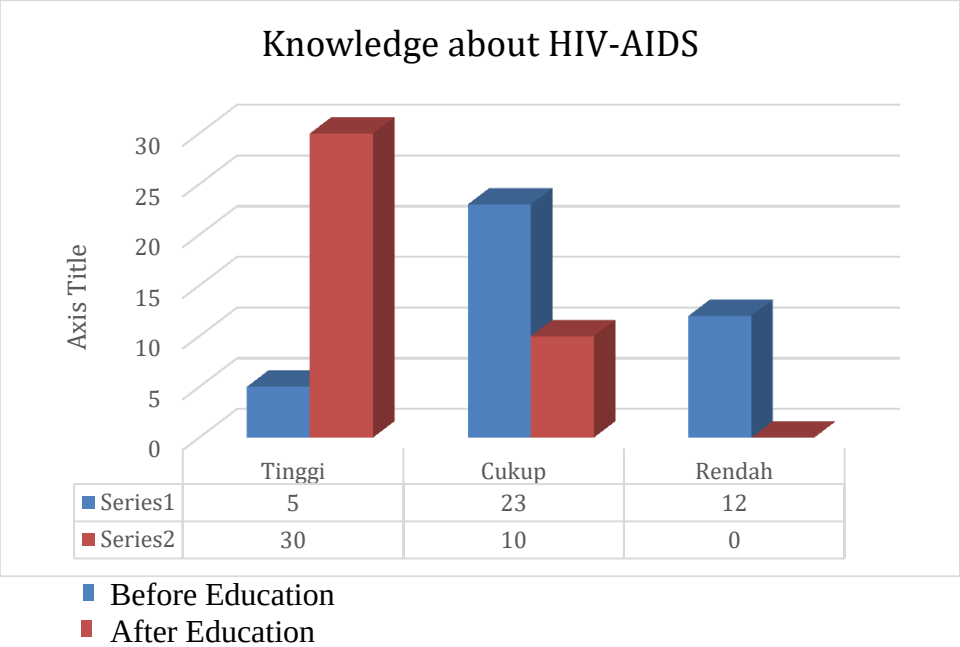
Based on the graph above, it can be seen that the level of participants' knowledge about condoms increased significantly after implementing the education. Previously only 8 participants (20%) had a high level of knowledge which increased drastically to 30 people (75%), and after the education was carried out there were no participants who had low knowledge about condoms. The following are the results of measuring the level of knowledge about HIV-AIDS and its transmission before education was carried out

Table 4. Knowledge about HIV AIDS before education

No	Level	Frequency	Percentage (%)
1	Tall	5	12.5
2	Enough	23	57.5
3	Low	12	30

Based on the pretest results, it was found that as many as 30% of respondents had low knowledge about HIV AIDs and its transmission. As many as 57.5% had a sufficient level of knowledge and only 12.5% had a high level of knowledge. Most of the respondents did not understand the transmission of HIV AIDs. The educational activities provided also include providing material and knowledge about HIV AIDS as well as transmission and ways to prevent it, including in the case of pregnant women infected with HIV AIDS. The following is the difference in the level of knowledge of participants regarding HIV AIDS before and after educational activities:

Figure 3 Level of Knowledge about HIV-AIDS before and after education



Based on the graph above, it can be seen that the level of participants' knowledge about HIV-AIDS increased significantly after implementing the education. Previously only 5 participants (12.5%) had a high level of knowledge which increased drastically to 30 people (75%), and after the education was carried out there were no participants who had low knowledge about HIV-AIDS, which previously was 30% of respondents.

DISCUSSION

Transmission of HIV AIDS can occur due to sexual and parenteral contact (i.e. through blood transfusions, injecting drug abuse), transmission from mother to child during the birth process and breastfeeding. According to Astindari & Lumintang (2014) unprotected sexual intercourse where one of the individuals having sexual intercourse is infected with HIV, heterosexual behavior, MSM, sex workers and their partners, use of tattoos, perinatal can be risk factors for contracting HIV infection. Sexual behavior can be said to be risky if the sexual behavior is detrimental or results in unexpected things resulting in negative impacts such as increasing the number of abortions, unwanted pregnancies (KTD), sexually transmitted diseases (STDs), free sex and also drug abuse (Chandra A. et.all, 2014). Risky sexual behavior is influenced by several factors such as age, gender, education level, family role, peer influence, exposure to pornographic media (Mahmudah et al, 2016). Several of these factors are components of sociodemographics. Knowledge is one of the predisposing factors for risky sexual behavior.

Risky sexual behavior is an action carried out by a person related to sexual urges that come either from within him or from outside him (Notoatmodjo, 2007). When having sexual relations, sometimes a person does not protect themselves from two possible problems that can occur, namely unwanted pregnancy and sexually transmitted diseases which can lead to sexually transmitted diseases (STDs). Based on the results of the initial survey, it is known that there are still respondents in this intervention who do not use condoms when having sexual relations, and have sexual relations with irregular partners. This risky sexual behavior shows that there is still a lack of knowledge and awareness regarding the risks that will occur, such as sexually transmitted diseases.

Risky sexual behavior can result in various sexually transmitted diseases, one of which is the transmission of HIV-AIDS. HIV can be transmitted either through same-sex (homosexual) or different-sex (heterosexual) sexual relations when the partner is infected with HIV. Women are at greater risk than their partners because transmission from male to female is more efficient than female to male. During sexual intercourse, damage to the lining of the sexual organs can transmit HIV from an infected partner by exchanging body fluids. Apart from having vaginal sexual intercourse which is risky, there are other risky sexual behaviors for contracting HIV, for example anal sex.

In this study, most of the respondents did not understand the transmission of HIV AIDs, most even thought that sharing eating utensils could transmit HIV AIDS, so there were respondents who were reluctant to care for someone in their family who was infected with HIV AIDS. Apart from that, participants' knowledge about the transmission of HIV AIDS from mother to child is also still low, because many respondents do not know that HIV can be transmitted from mother to child during pregnancy and childbirth. The educational activities provided also include providing material and knowledge about HIV AIDS as well as transmission and ways to prevent it, including in the case of pregnant women infected with HIV AIDS.

In educational activities, the importance of a support system from the social environment for PLWHA is also emphasized, so that people need to have knowledge about HIV-AIDS, how it is transmitted and prevented without discriminating against and isolating PLWHA. This is in accordance with the HIV-AIDS control policy referring to the global Getting To Zeros policy, namely:

1. Reducing or eliminating new HIV infections;
2. Reducing or eliminating deaths caused by conditions related to AIDS;
3. Eliminate discrimination against PLWHA;

As an effort to prevent HIV-AIDS transmission, the government also has many programs. This educational activity for key populations is one of the efforts to help implement

government programs. The government's strategy related to the HIV-AIDS Control Program and PIMS includes increasing early detection of HIV cases, namely by offering HIV testing to all patients who come to health services, whether outpatient or inpatient, as well as all key populations every 6 once a month. In areas with concentrated epidemics, routine HIV testing is offered to pregnant women, TB patients, hepatitis patients, correctional inmates (WBP), STI patients, permanent and casual partners of PLWHA and key populations such as FSW, waria, MSM and IDUs.

As an effort to prevent and control HIV AIDS, the government needs to work together with key populations, communities and the general public to increase outreach activities and provide education about the benefits of HIV testing and ARV therapy, and needs to work together with communities to increase prevention efforts through PIMS services and PTRM. This community service is carried out in the form of education for key communities as a form of contribution to controlling HIV AIDS in the Surabaya area and its surroundings.

CONCLUSION

Based on the discussion above, it can be concluded that:

1. Java Province The East is designated as a region with concentrated HIV prevalence along with 5 (five) other provinces, namely DKI Jakarta, Papua, Bali, Riau and Java West. The trend of HIV AIDS cases in East Java continued to rise from 1989 to 2019 and experienced a decline in 2020-2021, but rose again in 2022.
2. Risky sexual behavior such as having sexual relations with irregular partners, not using condoms during sexual intercourse, having sexual relations under the influence of alcohol and drugs are still carried out by key communities.
3. The level of knowledge about condoms and their uses increased significantly after educational activities.
4. The level of knowledge about HIV-AIDS transmission and control increased significantly after educational activities

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